## CONTENTS

(Abstracts/contents lists published in: Chem. Abstr.; Curr. Contents; Phys. Chem. Earth Sci., Life S	Sci.)
The 2,3-epoxide, a donor in lanthanide shift-reagent studies of carbohydrate systems; the X-ray structure of methyl 2,3-anhydro-4,6-O-benzylidene-β-D-mannopyranoside	
D. CUNNINGHAM, N. GAVIN, E. LEE, P. MCARDLE, J. O'CALLAGHAN, AND T. HIGGINS (Galway, Ireland)	1
Crystal structure of di-β-D-fructofuranose 2',1:2,3'-dianhydride	
T. TANIGUCHI, M. SAWADA, T. TANAKA, AND T. UCHIYAMA (Osaka, Japan)	13
Methanolysis of acetylated sugars and glycosides in the presence of tin oxides and alkoxides J. Herzig, A. Nudelman, and H. E. Gottlieb (Ramat Gan, Israel)	21
Synthesis of 2,3:4,6-di-O-isopropylidene derivatives of alkyl α- and β-D-galactopyranosides, and elucidation of structure by n.m.r. and X-ray analysis	
P. L. Barili, G. Catelani, F. Colonna, A. Marra (Pisa, Italy), S. Cerrini, and D. Lamba (Rome, Italy)	29
Isolation and structure of a new oligosaccharide formed as a by-product during the preparation of commercial lactulose  T. Pehk, E. Lippmaa (Tallinn, U.S.S.R.), J. SCHRAML, O. PIHAR, M. MINÁRIK (Prague, Czechoslovakia), J. HIRSCH (Bratislava, Czechoslovakia), H. KNOBLOCH, AND S. N.	
DATTA (St. Ingebert, F.R.G.)  Conjugates of biologically active lipid A-subunit analogs with 3-deoxy-D-manno-2-octulosonic acid (KDO) and its methyl ester  M. KISO, M. FUJITA, M. TANAHASHI, Y. FUJISHIMA, Y. OGAWA, A. HASEGAWA (Gifu, Japan), AND F. M. UNGER (Vienna, Austria)	51
Synthesis of branched D-xylofuranan by selective, ring-opening polymerization of silylated 1,5-anhydro-β-D-xylofuranose, and its conversion into a blood anticoagulant T. YOSHIDA, T. ARAI, Y. MUKAI, AND T. URYU (Tokyo, Japan)	69
A convenient method for the cleavage of the D-mannosyl-L-gulose disaccharide from bleomycin-	
A <sub>2</sub> A. Kenani, G. Lamblin, and JP. Hénichart (Lille, France)	81
Degradation with formic acid of conformationally different (1→3)-β-D-glucans isolated from liquid-cultured mycelium of <i>Grifola frondosa</i> Y. ADACHI, N.OHNO, T. YADOMAE, Y. SUZUKI, K. SATO, AND S. OIKAWA (Tokyo, Japan)	91
Semisynthetic analogues of ginsenosides, glycosides from ginseng L. N. ATOPKINA, V. A. DENISENKO, N. I. UVAROVA, AND G. B. ELYAKOV (Vladivostok, U.S.S.R.)	101
Analysis of positions of substitution of O-methyl or O-ethyl groups in partially methylated or ethylated cellulose by the reductive-cleavage method A. J. D'Ambra, M. J. Rice, S. G. Zeller, P. R. Gruber, and G. R. Gray (Minneapolis, MN. U.S.A.)	111

Structural investigations on the mucilaginous polysaccharides isolated from bark of the avocado tree (Persea americana Mill)	
D. C. GOWDA, C. SARATHY, AND T. S. RAJU (Mysore, India)	117
Soluble lignin-carbohydrate complexes from sheep rumen fluid: Their composition and structural features	
J. CONCHIE, A. J. HAY, AND J. A. LOMAX (Aberdeen, Gt. Britain)	127
Isolation and characterization of the 36-kDa D-mannose 6-phosphate receptor from porcine testis T. BABA, K. WATANABE, AND Y. ARAI (Ibaraki, Japan)	153
Preparation and application of a pentamannosyl monophosphate-bovine serum albumin conjugate T. Baba, K. Watanabe, N. Yonezawa, M. Hiroto, and Y. Arai (Ibaraki, Japan).	163
Wistaria sinensis agglutinin: Purification, carbohydrate specificity, and characterisation of the com- bining site	
H. AHMED AND B. P. CHATTERJEE (Calcutta, India)	173
N-Formylkansosaminyl-(1→3)-2-O-methyl-D-rhamnopyranose: The type-specific determinant of serovariant 14 of the Mycobacterium avium complex	
M. McNeil, H. Gaylord, and P. J. Brennan (Fort Collins, CO, U.S.A.)	185
Synthesis of seven penta-N, O-acetyl-pseudo-2-amino-2-deoxy-DL-hexopyranoses S. OGAWA AND M. ORIHARA (Yokohama, Japan)	199
Notes	
Synthesis of pseudo-sugar derivatives from 5exo, 6exo-dihydroxy-endo- and -exo-7-oxabicyclo- [2.2.1]heptane-2-carboxylic acids S. OGAWA, M. UEMURA, AND T. FUJITA (Yokohama, Japan)	213
An improved method for the preparation of derivatives of reducing oligosaccharide with 2-(4-aminophenyl)ethylamine	
L. H. SEMPREVIVO (Amherst, MA, U.S.A.)	222
A simple n.m.r. method for assigning the carbonyl resonances of carbohydrate acetates C. M. Buchanan, J. A. Hyatt, and D. W. Lowman (Kingsport, TN, U.S.A.)	228
Isolation and identification of a linear (1→3)-linked β-D-glucan and other carbohydrate components of the lichen Stereocaulon ramulosum (SW.) Räusch	
M. BARON, P. A. J. GORIN, AND M. IACOMINI (Curitiba, Brazil)	235
Formation of 1-deoxy-D-erythro-2,3-hexodiulose from Amadori compounds  J. BECK, F. LEDL, AND T. SEVERIN (München, F.R.G.)	240
High-pressure approach to the synthesis of "C-O-N-" analogues of nucleosides  E. Grochowski, H. Stepowska, P. Salański, and J. Jurczak (Warsaw, Poland)	244
Synthesis and reactions of chlorodeoxy-1idofuranoid derivatives C. K. LEE (Kent Ridge, Singapore)	247
Synthesis of 6-deoxy-6-fluorosucrose, and its inhibition of Leuconostoc and Streptococcus D-	
glucansucrases S. H. EKLUND AND J. F. ROBYT (Ames, IA, U.S.A.)	253
The synthesis of some novel group IVa organometallic derivatives of carbohydrates	
K. J. HALE, L. HOUGH, AND A. C. RICHARDSON (London, Gt. Britain)	259
(Continued on facing	page)

## (contents continued)

Partial characterisation of galactofuranose-containing heteropolysaccharides from the cell walls of Talaromyces helicus	
A. PRIETO, P. RUPÈREZ, A. HERNÁNDEZ-BARRANCO, AND J. A. LEAL (Madrid, Spain).	265
Structure of the capsular polysaccharide (K19 antigen) from uropathogenic Escherichia coli O25:K19:H12	
B. JANN, R. AHRENS, T. DENGLER, AND K. JANN (Freiburg, F.R.G.)	273
Bacteriophage degradation of the capsular polysaccharide of Klebsiella K24 and determination of the position of the O-acetyl group	
G. Annison, G. G. S. Dutton, and P. K. Mandal (Vancouver, B.C., Canada)	278
Structure of a neutral polymer isolated from the lipopolysaccharide of the reference strain (C.D.C. 4523-60) for Serratia marcescens serogroup O15	
D. OXLEY AND S. G. WILKINSON (Hull, Gt. Britain)	285
Distribution of substituents in O-ethylcellulose	
KG. ROSELL (Vancouver, B.C., Canada)	289
Preliminary communications	
Synthesis of antigenic copolymers of N-acetylneuraminic acid binding to wheat germ agglutinin and antibodies	
R. ROY AND C. A. LAFERRIÈRE (Ottawa, Ontario, Canada)	c1
Chemoselective reduction of D-fructose in the presence of D-glucose	
R. Roy, S. Gervais (Ottawa, Ontario, Canada), A. Gamian and J. Boratynski	-6
(Wrocław, Poland)	C5
A new and efficient synthesis of pyruvate acetals of hexopyranosides H. Hashimoto, K. Hiruma and J. Tamura (Yokohama, Japan)	c9
Alkyl sulfenyl triflate as activator in the thioglycoside-mediated formation of $\beta$ -glycosidic linkages during oligosaccharide synthesis	
F. DASGUPTA AND P. J. GAREGG (Stockholm, Sweden)	c13
Book review	c18
Author Index	c19
Subject Index	c21